August 14, 2007

Mr. David A. Christian
Senior Vice President and
Chief Nuclear Officer
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT: KEWAUNEE POWER STATION - NRC INTEGRATED INSPECTION REPORT 05000305/2007003 AND NOTICE OF VIOLATION

Dear Mr. Christian:

On June 30, 2007, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Kewaunee Power Station. The enclosed integrated inspection report documents the inspection findings, which were discussed on July 11, 2007, with Ms. L. Hartz and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, the NRC has determined that a severity Level IV violation of NRC requirements occurred. The violation was evaluated under the NRC traditional enforcement process in accordance with the NRC Enforcement Policy included on the NRC's Web site at www.nrc.gov; select **What We Do**, **Enforcement**, then **Enforcement Policy**.

The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. The violation is being cited in the Notice because this issue was not entered into your corrective action program as you disagree with the violation.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

Based on the results of this inspection, the NRC has also identified a finding of very low safety significance, which involved a violation of NRC requirements. Because this finding was of very low safety significance and was entered into your corrective action program, the NRC is treating that issue as a non-cited violation (NCV), in accordance with Section VI.A.1 of the NRC Enforcement Policy.

If you contest the NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Kewaunee Power Station.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Jamnes L. Cameron, Chief
Branch 5
Division of Reactor Projects

Docket No. 50-305
License No. DPR-43

Enclosure: Inspection Report 05000305/2007003
w/Attachment: Supplemental Information

cc w/encl: L. Hartz, Site Vice President
C. Funderburk, Director, Nuclear Licensing
and Operations Support
T. Breene, Manager, Nuclear Licensing
L. Cuoco, Esq., Senior Counsel
D. Zellner, Chairman, Town of Carlton
J. Kitsembel, Public Service Commission of Wisconsin
State Liaison Officer, State of Wisconsin

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T. Breene, Manager, Nuclear Licensing
L. Cuoco, Esq., Senior Counsel
D. Zellner, Chairman, Town of Carlton
J. Kitsembel, Public Service Commission of Wisconsin
State Liaison Officer, State of Wisconsin

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DATE	08/14/07						

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Letter to D. Christian from J. Cameron dated August 14, 2007

SUBJECT: KEWAUNEE POWER STATION - NRC INTEGRATED INSPECTION REPORT 05000305/2007003 AND NOTICE OF VIOLATION

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NOTICE OF VIOLATION

Dominion Energy Kewaunee, Inc.
Kewaunee Power Station

Docket No. 50-305
License No. DPR-43
VIO 05000305/2007003-01

During an NRC inspection conducted from April 1 through June 30, 2007, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Title 10 CFR 50.59(d)(1) requires, in part, that the licensee maintain records of changes in the facility, of changes in procedures, and of tests and experiments. These records must include a written evaluation which provides the bases for the determination that the change, test, or experiment does not require a license amendment.

Contrary to the above, the licensee issued an operating procedure change to Procedure E-O-05, "Response to Natural Events in May 2006, without an adequate safety evaluation for potential adverse consequences during a tornado. Specifically, the licensee's 10 CFR 50.59 Screening, No. 06-35-00, performed on May 15, 2006, did not assess all aspects of a tornado strike, including potential fire, toxic gas, or radiological hazards; nor did the screening assess the impact of these hazards on control room habitability when compensatory measures were adopted that disabled the system.

This violation is associated with a Severity Level IV violation.

Pursuant to the provisions of 10 CFR 2.201, Dominion Energy Kewaunee, Inc. (licensee) is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001 with a copy to the Regional Administrator, and Enforcement Officer, Region III, and a copy to the NRC Resident Inspector at Kewaunee, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation; VIO 05000305/2007003-01," and should include for the violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations; and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an Order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 14th day of August 2007

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-305
License No:	DPR-43
Report No:	05000305/2007003
Licensee:	Dominion Energy Kewaunee, Inc.
Facility:	Kewaunee Power Station
Location:	Kewaunee, WI 54216
Dates:	April 1 through June 30, 2007
Inspectors:	S. Burton, Senior Resident Inspector P. Higgins, Resident Inspector G. O'Dwyer, Regional Engineering Specialist J. Cassidy, Health Physicist J Tapp, Reactor Engineer
Approved by:	J. Cameron, Chief Branch 5 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000305/2007003; 04/01/2007 - 06/30/2007; Kewaunee Power Station. Operability Evaluations, and Surveillance Testing.

This report covers a three-month period of inspection by resident inspectors and announced inspections by regional specialists. Two Green findings, one with an associated non-cited violation (NCV) and one with a cited severity level IV violation were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be "Green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. NRC-Identified and Self-Revealed Findings

Cornerstone: Mitigating Systems

- Green. The inspectors identified a finding having very low safety significance and an associated Severity Level IV, Cited Violation of 10 CFR 50.59 while reviewing unresolved items URI 05000305/2006003-04, "Adequacy of Compensatory Actions for Potential Turbine Missile Strike of Control Room Ventilation Cooling"; and URI 05000305/2006016-01, "Adequacy of 10 CFR 50.59 Screening for Procedure Change." Specifically, the licensee failed to properly interpret design and licensing basis requirements associated with protection against external events and as a result did not perform a 10 CFR 50.59 evaluation. The cause of this finding is related to the cross-cutting area of problem identification and resolution because the licensee had similar prior problems that, if effectively evaluated and resolved, could have prevented this issue. (P.1(c))

  This finding was determined to be more than minor because the inspectors determined that the procedure change would have ultimately required NRC approval. The procedure changes, in the form of compensatory operator actions, adversely impacted the operation of control room recirculation system following a tornado. A Phase 1 significance determination of this finding using IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," using the Severe Weather Screening Criteria questions was completed. Since the loss of the control room recirculation system would not result in an initiating event or degrade two or more trains of a multi-train safety system, the issue screened as Green. (Section 1R15.a.1)

Cornerstone: Barrier Integrity

- Green. The inspectors identified a finding having very low safety significance and an associated non-cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions , Procedures, and Drawings,"while reviewing surveillance testing procedures for the auxiliary building special ventilation zone (Zone SV). Specifically, the licensee procedure for tracking the amount of in-leakage into the Zone SV did not have adequate criteria to capture degraded conditions, nor ensure that the acceptance

criteria reflected the design requirements of the system. The cause of this finding is related to the cross-cutting area of problem identification and resolution because the licensee failed to properly evaluate multiple condition reports for operability and extent of condition. (P1(c))

This finding was determined to be more than minor because, if left uncorrected, the failure to evaluate barrier breaches that did not have breach permits could become a more significant safety concern. Specifically, if left unmonitored the breaches without barrier permits could potentially exceed the allowable design limits. The finding was evaluated using IMC 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations." The answer to Question 1 in the Significance Determination Process Phase 1 Screening Worksheet in the Containment Barrier Cornerstone column was "yes"; therefore, this finding is of very low safety significance (Green). Corrective actions to date included revisions to procedure FPP-08-09, to track barrier breaches that result from degraded conditions and provide conservative acceptance criteria. (Section 1R22.b)

B. Licensee-Identified Violations

None.

REPORT DETAILS

Summary of Plant Status

Kewaunee operated at full power for the entire inspection period except for brief reductions in power to conduct planned surveillance testing activities with the following exceptions:

- on April 29 operators commenced a shutdown of the unit due to outside air temperature exceeding limits for emergency diesel generator (EDG) operability. Power was reduced to approximately 90 percent when air temperatures lowered to a point where EDG operability was restored. Power was increased to full power later the same day;

- on May 3 operators reduced reactor power to 94 percent for heater drain pump repairs. The reactor was returned to full power on May 7; and

- on June 23 operators reduced reactor power to 46 percent for condensate pump and heater drain pump repairs, and to conduct auxiliary feedwater (AFW) and turbine stop valve testing. The reactor was returned to full power on June 24, 2007.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

The inspectors performed a detailed review of the licensee's procedures and a walkdown of two systems to observe the licensee's preparations for adverse weather, including high temperatures and high winds. The inspectors focused on plant specific design features for the systems and implementation of the procedures for responding to or mitigating the effects of adverse weather. Inspection activities included, but were not limited to, a review of the licensee's adverse weather procedures, preparations for summer season, and a review of analyses and requirements identified in the Updated Safety Analysis Report (USAR). The inspectors also verified that operator actions specified by plant procedures were appropriate. As part of this inspection, the documents listed in the Attachment were reviewed.

The inspectors evaluation of the readiness for seasonal susceptibilities for the following areas counts as two inspection samples:

- seasonal hot weather preparations; and
- transformers and switch yard in preparation for a high wind advisory.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial Walkdown

a. Inspection Scope

The inspectors performed partial walkdowns of accessible portions of trains of risk-significant mitigating systems equipment. The inspectors reviewed equipment alignment to identify any discrepancies that could impact the function of the system and potentially increase risk. Identified equipment alignment problems were verified by the inspectors to be properly resolved. The inspectors selected redundant or backup systems for inspection during times when equipment was of increased importance due to unavailability of the redundant train or other related equipment. Inspection activities included, but were not limited to, a review of the licensee's procedures, verification of equipment alignment, and an observation of material condition, including operating parameters of equipment in-service. As part of this inspection, the documents listed in the Attachment were reviewed.

The inspectors selected the following equipment trains to assess operability and proper equipment line-up for a total of two inspection samples:

- AFW water train "A" after return to service from testing; and
- EDG "B" with EDG "A" out-of-service for maintenance.

b. Findings

No findings of significance were identified.

.2 Complete System Walkdown

a. Inspection Scope

The inspectors performed a complete walkdown of equipment for one risk significant mitigating system. The inspectors walked down the system to review mechanical and electrical equipment line-ups, component labeling, component lubrication, component and equipment cooling, hangers and supports, and operability of support systems, and to ensure that ancillary equipment or debris did not interfere with equipment operation. A review of past and outstanding work orders was performed to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the corrective action program database to ensure that any system equipment alignment problems were being identified and appropriately resolved. As part of this inspection, the documents listed in the Attachment were reviewed.

The inspectors selected the component cooling water system (CCW) system to assess operability and proper equipment line-up for a total of one inspection sample.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Quarterly Fire Zone Walkdowns (71111.05Q)

a. Inspection Scope

The inspectors walked down risk significant fire areas to assess fire protection requirements. The inspectors reviewed areas to assess whether the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and had implemented adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems, or features. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events, or the potential to impact equipment which could initiate or mitigate a plant transient. The inspection activities included, but were not limited to, the control of transient combustibles and ignition sources, fire detection equipment, manual suppression capabilities, passive suppression capabilities, automatic suppression capabilities, compensatory measures, and barriers to fire propagation. As part of this inspection, the documents listed in the Attachment were reviewed.

The inspectors selected the following areas for review, for a total of 13 inspection samples:

- Fire Zone PFP-4, Screen House and Tunnel;
- Fire Zone PFP-5, 1A Diesel Generator and Diesel Generator Day Tank Rooms;
- Fire Zone PFP-6, 1B Diesel Generator and Diesel Generator Day Tank Rooms;
- Fire Zone PFP-7, Carbon Dioxide Storage Tank Room;
- Fire Zone PFP-8, 480-volt Switchgear Bus 1-51 and 1-52 Room;
- Fire Zone PFP-9, 480-volt Switchgear Bus 1-61 and 1-62 Room and AFW Pump;
- Fire Zone PFP-11, Turbine Building Basement;
- Fire Zone PFP-12, Turbine Building Mezzanine - and Related Transformer;
- Fire Zone PFP-14, Turbine Building - Operating Floor;
- Fire Zone PFP-16, Refueling Water Storage Tank and Containment Spray;
- Fire Zone PFP-17, Charging Pump, Boric Acid Pump and Residual Heat Removal Pump Pit;
- Fire Zone PFP-19, Condensate Storage & Reactor Make Up Water Room; and
- Fire Zone PFP-23, Spent Fuel Pool, Waste Handling & Main Steam Relief Valve Area.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

The inspectors performed an annual review of flood protection barriers and procedures for coping with internal flooding. The inspection focused on determining whether flood mitigation plans and equipment were consistent with design requirements and risk analysis assumptions. The inspection activities included, but were not limited to, a review and/or walkdown to assess design measures, seals, drain systems, contingency equipment condition and availability of temporary equipment and barriers, performance and surveillance tests, procedural adequacy, and compensatory measures. As part of this inspection, the documents listed in the Attachment were reviewed.

The inspectors selected the following equipment for review, for a total of two inspection samples:

- safeguards alley service water (SW) system; and
- safeguards alley water mitigation and removal with high water level in the related trench.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07B)

Biennial Review of Heat Sink Performance

a. Inspection Scope

The inspectors reviewed the performance of the 1A Component Cooling Heat Exchanger (component ID 135-081) and the RHR pump pit fan coil unit 1A (component ID 155-051). These heat exchangers were chosen for the review based on many factors including, the high risk assessment (RA) worth in the licensee's probabilistic risk analysis, the important safety-related mitigating system support functions, and relatively low margin. This review resulted in the completion of two inspection samples. While onsite, the inspectors verified that the inspection, engineering, and maintenance activities were adequate to ensure proper heat transfer. This was done by conducting independent heat transfer capability calculations, reviewing the methods used to inspect the heat exchangers, verifying that the as-found results were appropriately dispositioned, and by personnel interviews. The inspectors also verified, by review of procedures, test results, and interviews, that chemical treatments, ultrasonic tests, and methods used to control biotic fouling, corrosion, and macro-fouling were sufficient to ensure required heat exchanger performance. The inspectors verified that the condition and operation of these heat exchangers were consistent with design assumptions in heat transfer calculations by reviewing related procedures and surveillance. This was performed by reviewing inspect/clean work orders, calculations, and completed surveillance tests. During the inspection, the inspectors walked down the accessible

portions of the selected heat exchangers and verified installation configurations complied with design documents and that material condition was adequate.

Also while onsite, the inspectors verified two attributes of the ultimate heat sink (UHS) as required by Inspection Procedure 71111-07B, Section 2.02, Items d.2 and d.6. The inspectors reviewed written documentation of inspections, maintenance, and repairs of below-water portions of underwater UHS structures which ensured UHS structural integrity and sedimentation removal capabilities. The inspectors confirmed that the inspection and maintenance methodologies, including intake crib repairs, were consistent with NRC and industry accepted practices. The inspectors also verified that the licensee had appropriate controls in place to ensure functionality of the UHS during adverse weather conditions including icing or high temperatures.

The inspectors reviewed corrective action documents, concerning heat exchanger or heat sink performance issues to verify that the licensee had an appropriate threshold for identifying issues. The inspectors also evaluated the effectiveness of the corrective actions for identified issues, including the engineering justifications for operability. As part of this inspection, the documents listed in the Attachment were reviewed.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

a. Inspection Scope

The inspectors performed a quarterly review of licensed operator requalification training. The inspectors assessed the licensee's effectiveness in evaluating the requalification program, ensuring that licensed individuals operate the facility safely and within the conditions of their license, and evaluated licensed operator mastery of high-risk operator actions. The inspection activities included, but were not limited to, a review of high risk activities, emergency plan performance, incorporation of lessons-learned, clarity and formality of communications, task prioritization, timeliness of actions, alarm response actions, control board operations, procedural adequacy and implementation, supervisory oversight, group dynamics, interpretations of Technical Specifications (TS), simulator fidelity, and licensee critique of performance. As part of this inspection, the documents listed in the Attachment were reviewed.

The inspectors observed a training crew during an evaluated simulator scenario (description withheld for exam security purposes) for a total of one inspection sample.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors reviewed systems the licensee designated as risk significant under the maintenance rule to assess maintenance effectiveness, including maintenance rule activities, work practices, and common cause issues. Inspection activities included, but were not limited to, the licensee's categorization of specific issues, including evaluation of performance criteria, appropriate work practices, identification of common cause errors, extent of condition, and trending of key parameters. Additionally, the inspectors reviewed implementation of the Maintenance Rule (10 CFR 50.65) requirements, including a review of scoping, goal-setting, performance monitoring, short-term and long-term corrective actions, functional failure determinations associated with reviewed corrective action program documents, and current equipment performance status. As part of this inspection, the documents listed in the Attachment were reviewed.

The inspectors performed a function-oriented review of the following maintenance effectiveness reviews for a total of three inspection samples:

- the instrument air system;
- the CCW system; and
- the SW system.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed maintenance activities to review RAs and emergent work control. The inspectors verified the performance and adequacy of RAs, management of resultant risk, entry into the appropriate licensee-established risk bands, and the effective planning and control of emergent work activities. The inspection activities included, but were not limited to, a verification that licensee RA procedures were followed and performed appropriately for routine and emergent maintenance, that RAs for the scope of work performed were accurate and complete, that necessary actions were taken to minimize the probability of initiating events, and that activities to ensure that the functionality of mitigating systems and barriers were performed. Reviews also assessed the licensee's evaluation of plant risk, risk management, scheduling, configuration control, and coordination with other scheduled risk significant work for these activities. Additionally, the assessment included an evaluation of external factors, the licensee's control of work activities, and appropriate consideration of baseline and cumulative risk. As part of this inspection, the documents listed in the Attachment were reviewed.

The inspectors observed maintenance or planning for the following activities or risk significant systems undergoing scheduled or emergent maintenance, for a total of three inspection samples:

- emergent work added during the week of April 14, 2007 including EDG maintenance and heater drain pump maintenance;
- emergent maintenance due to Heater Drain Pump "B" failure during the week of May 3, 2007; and
- emergent switch yard maintenance during the week of May 29, 2007.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed operability evaluations that affected mitigating systems or barrier integrity to ensure that operability was properly justified and that the component or system remained available. The inspection activities included, but were not limited to, a review of the technical adequacy of the operability evaluations to determine the impact on TSs, the significance of the evaluations to ensure that adequate justifications were documented, and that risk was appropriately assessed. As part of this inspection, the documents listed in the Attachment were reviewed.

The inspectors reviewed the following operability evaluations for a total of seven inspection samples:

- CAP043450, Diesel Generator "A" Air Intake Filter Housing to Turbo is Cracked;
- CAP043556, EDG Jacket Water HX Design Basis Performance Analysis is not Bounding;
- CAP044034, Heat Exchanger Performance Monitoring and Tube Plugging Using Incorrect SW Flow Rates;
- CAP044276, Diesel Generator "A" Ventilation Measured Flow Readings Lower than Assumed in Calc C10044, Revision 1 and CAP044506, Diesel Generator "B" Ventilation Measured Flow Readings Lower than Assumed in Calculation C10044, Revision 1;
- CAP044316, Differential Temperatures in WO 07–2513 were Greater than Utilized in OD 151;
- CR013788, Concern on Non-safety-related/safety Related Interface Condensate to Auxiliary Feed Water; and
- CAP044344 Elevated Outdoor Air Temperatures.

b. Findings

.1 Closed Unresolved Item (URI) 05000305/2006003-04: Adequacy of Compensatory Actions for Potential Turbine Missile Strike of Control Room Ventilation Cooling"; and URI 05000305/2006016-01, "Adequacy of 10 CFR 50.59 Screening for Procedure Change"

Introduction: A finding having very low safety significance (Green) and an associated Severity Level IV, Cited Violation of 10 CFR 50.59 was identified by the inspectors while reviewing unresolved items URI 05000305/2006003-04, "Adequacy of Compensatory Actions for Potential Turbine Missile Strike of Control Room Ventilation Cooling"; and URI 05000305/2006016-01, "Adequacy of 10 CFR 50.59 Screening for Procedure Change." Specifically, the licensee failed to properly interpret design and licensing basis requirements associated with protection against external events and as a result did not perform a 10 CFR 50.59 evaluation.

Discussion: The inspectors reviewed URI 05000305/2006003-04, "Adequacy of Compensatory Actions for Potential Turbine Missile Strike of Control Room Ventilation Cooling"; and URI 05000305/2006016-01, "Adequacy of 10 CFR 50.59 Screening for Procedure Change." The inspectors determined that both URIs were attributed to a common performance deficiency; the licensee failed to properly interpret TSs and the design and licensing basis associated with system requirements for protection against external events.

Unresolved Item, URI 05000305/2006003-04, discussed a condition where, under certain tornado conditions, compensatory measures to ensure control room cooling was maintained would breach the control room envelope, and render the control room post-accident recirculation system inoperable.

Unresolved Item, URI 05000305/2006016-01, discussed a condition concerning the licensee's conclusion that a 10 CFR 50.59 safety evaluation was not required. The screening was for revising Procedure E-O-05, "Response to Natural Events," to isolate SW to the control room air conditioning system and other structures, systems and components.

In May 2005, during a plant shutdown, the licensee issued CAP027495, "Service Water Supplies to CRAC [Control Room Air Conditioning] Units Potentially Impacted by Tornado Missiles," which identified a nonconforming condition associated with the CRAC system. This nonconforming condition involved the vulnerability of the CRAC system SW supply lines to an impact by tornado missiles. The licensee determined that such impact from tornado missiles was credible and could render the CRAC inoperable and could cause the temperature in the control room to exceed equipment qualification limits. This vulnerability had existed since original plant startup.

In July 2005, the licensee started up the plant without compensatory actions in place to ensure that control room temperatures could be maintained below equipment qualification limits if the CRAC was disabled by a tornado missile impact on the SW supply lines to the CRAC.

In May, 2006, shortly before a subsequent plant startup, the NRC inspectors questioned the acceptability of restarting the plant with the CRAC system vulnerable to tornado missile impact. As a result of the inspectors questions, the licensee established compensatory measures in the event the CRAC system SW supply and return piping was rendered inoperable by tornado missiles. The licensee revised plant procedure E-O-05, "Response to Natural Events," to establish compensatory measures to require the plant to be shutdown, the control room and relay room doors be opened, and portable non-safety related fans be placed in position to establish airflow from outside the plant structures through the control room. The licensee performed a 10 CFR 50.59 screening on May 15, 2006 for the revised procedure and concluded that the procedure revision and compensatory actions established by the revision were acceptable. The licensee did not discuss the effect this activity would have on control room habitability.

The inspectors noted that opening the control room doors would violate the control room exclusion zone (CREZ) envelope and would render the control room post accident recirculation system ineffective. The CRAC, the CREZ, and the control room post accident recirculation system are specifically required by the Kewaunee Power Station USAR, Appendix B, to be able to withstand a tornado. The inspectors were concerned that violating the CREZ boundary would render the control room and its inhabitants vulnerable to exposure to smoke, toxic gases, and radioactive releases which may be present in the environment external to the plant following a tornado strike.

The licensee stated that their basis for not performing a 10 CFR 50.59 evaluation was that the procedural changes to E-O-05 required the reactor to be shut down prior to implementation of the compensatory measures, a condition where maintenance of the CREZ boundary and utilization of control room recirculation was not required by plant TSs. As such, the licensee concluded that it would have been acceptable to implement the compensatory measures without prior NRC approval.

The inspectors noted that the CRAC, the CREZ and the control room post-accident recirculation system are specifically required by the plant licensing basis to be able to withstand a tornado strike. Additionally, there is no provision in the plant licensing basis which would allow these systems to be rendered inoperable by a tornado strike, nor are there any provisions which would allow the licensee to render the systems inoperable following a tornado strike. The inspectors concluded that a failure to perform a proper 50.59 evaluation for the compensatory measures established in procedure E-O-05 was a performance deficiency because potential events associated with a tornado including, fire, toxic gas, a radiological hazards were not assessed.

During the fall 2006 refueling outage, the licensee installed tornado missile shielding around the CRAC SW supply and return lines to ensure that the CRAC would not be disabled by a tornado.

Analysis: The inspectors determined that the licensee's failure to perform a 10 CFR 50.59 evaluation for procedure E-O-05 was a performance deficiency warranting further review. Because violations of 10 CFR 50.59 are considered to be violations that potentially impede or impact the regulatory process, they are dispositioned using the traditional enforcement process instead of the Significance

Determination Process. In this case, the licensee failed to perform a safety evaluation in accordance with 10 CFR 50.59 for changes made to Procedure E-O-05 concerning compensatory measures which would implement design changes following a tornado strike on the plant. These procedural and design changes would violate the CREZ boundary, require that outside air be forced into the control room using non-safety related fans and render the recirculation function of control room ventilation system unable to perform its design function.

This finding was determined to be more than minor because the inspectors determined that the procedure change would have ultimately required NRC approval. The procedure changes, in the form of compensatory operator actions, adversely impacted the operation of control room recirculation system following a tornado. The inspectors completed a significance determination of this finding using IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The inspectors determined that the finding could be evaluated using the Phase 1 Severe Weather Screening Criteria questions. Since the loss of the control room recirculation system would not result in an initiating event or degrade two or more trains of a multi-train safety system, the issue screens as Green.

The inspectors also determined that the finding has a cross-cutting aspect in the area of problem identification and resolution because the licensee had similar problems previously that, if effectively evaluated and resolved, could have prevented this issue. Specifically, a Non-cited, Severity Level IV, Violation (NCV 05000305/2005002-06) was issued previously, which also indicated a 10 CFR 50.59 evaluation should have been performed for a temporary procedure change that proposed compensatory actions to address degraded or nonconforming conditions. More specifically, the non-cited violation was related to changes to Procedure E-O-05 that established compensatory measures in the event of a tornado watch or warning. The violation concluded that the introduction of procedure changes which introduced adverse effects was a performance deficiency. The inspectors reviewed CAP025487, which implemented corrective actions for NCV 05000305/2005002-06, and found that it narrowly focused the corrective actions to the procedural step performed incorrectly, and that the corrective actions did not broadly review or correct the implementation and training deficiencies that contributed to the procedural noncompliance. (P.1(c))

Enforcement: The inspectors concluded that the licensee failed to perform a 10 CFR 50.59 evaluation for compensatory measures associated with a procedure change to Procedure E-O-05. The inspectors concluded that the 10 CFR 50.59 screening, No. 06-35-00, performed by the licensee did not cover all aspects of a tornado strike, including potential fire, toxic gas, or radiological hazards; nor did the screening assess the impact of these hazards on control room habitability when compensatory measures were adopted that disabled the system. The licensee made an incorrect assumption because they incorrectly interpreted plant TSs to allow the disabling of important safety systems, which might be required to protect control room personnel or maintain plant safety following a tornado strike.

The inspectors reviewed this issue for discretion as an old design issue and found that the licencee failed to implement immediate compensatory measures when the condition was first identified in 2005, therefore the issue did not meet the requirements for

discretion per Section VII.B.3 of the NRC Enforcement Policy for an "Old Design Issue." Because discretion and an NCV were not applicable, and because the inspectors concluded that the issue was attributable to the same performance deficiency associated with both URIs above, the design implications were adequately covered by this violation.

Title 10 CFR 50.59(d)(1) requires, in part, that the licensee maintain records of changes in the facility, of changes in procedures, and of tests and experiments. These records must include a written evaluation which provides the bases for the determination that the change, test, or experiment does not require a license amendment. Contrary to the above, the licensee issued an operating procedure change that introduced adverse consequences during an tornado and failed to perform an adequate safety evaluation in accordance with 10 CFR 50.59.

The results of this violation were determined to be of very low safety significance (Green). However, this violation of the requirements in 10 CFR 50.59 was classified as a Severity Level IV Violation. Although the licensee has entered aspects of this issue in the corrective action program (primarily to document and answer inspection related questions) the licensee disagrees with this violation and therefor corrective actions have not been proposed to address the issue; as such, this violation is being treated as a Cited Severity Level IV Violation consistent with Section VI.A of the NRC Enforcement Policy (VIO 05000305/2007003-01).

.2 Equipment and References for Response to an Earthquake Potentially Inadequate

Introduction: The inspectors identified an URI associated with the possible lack of USAR information related to the seismic response of the CRAC system, the adequacy and qualification of compensatory equipment for a seismic event, and the potential issues with supporting documentation for the licensee's Generic Letter (GL) 87-02, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment In Operating Reactors (USI A-46)" response.

Discussion: While reviewing URI 05000305/2006016-01 and URI 05000305/2006003-04, the inspectors noted that the licensee referenced Regulatory Guide 1.117, "Tornado Design Classification," and Generic Letter GL 87-02, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment In Operating Reactors (USI A-46)." Using these references, including the licensee response and associated NRC safety evaluation for GL 87-02, the licensee concluded that a 10 CFR 50.59 evaluation was not required or procedure changes to E-O-05. Notably the licensee concluded that in their response to USI A-46 that opening the control room doors was a method used to compensate for any cooling issues that might arise as a result of an earthquake.

The inspectors noted that equipment, procedures, and calculations to support the opening of the control room boundary were only established as a result of deficiencies associated with the tornado missile vulnerability to the SW supply to the CRAC system. The inspectors were concerned that the equipment, procedures, and calculations may have been prior credited in the USI A-46 response and would have been presumed

available prior to the CRAC issue. Additionally, the licensee removed the related equipment and stored it in a non-seismically controlled building following completion of the modifications to protect the CRAC SW supply piping from tornado missiles. The inspectors noted that the licensee had multiple opportunities to recognize the relationship between the compensatory equipment and seismic requirements as stated in USI A-46, and therefore considered their failure to recognize these requirements a performance deficiency.

Because the licensee referenced their USI A-46 seismic response as supporting this conclusion, the inspectors reviewed the related documentation and were unable to determine whether appropriate regulatory processes, such as 50.59, were used to establish compensatory measures that were credited in the USI A-46 response and subsequent safety evaluation report. Also, the inspectors noted that the compensatory measures the licensee credited for this issue might constitute a permanent modification to the design and if so, that the compensatory equipment should be seismically available and subject to the requirements of 10 CFR 50, Appendix B. The inspectors also noted that the USAR references supporting this safety evaluation report may not have sufficiently described the earthquake response and compensatory measures. These observations caused the inspectors to lose confidence that the permanently established compensatory measures and equipment was appropriate qualified, tested, and maintained for responding to a seismic event, and that the appropriate regulatory processes, such as 10 CFR 50.59 and 10 CFR 50 Appendix B, were used. Therefore, the inspectors considered the possible lack of information in the USAR related to the seismic response of the CRAC, the adequacy and qualification of compensatory equipment for a seismic event, and the potential issues with supporting documentation for the licensee's A-46 response unresolved pending further review. (URI 05000305/2007003-02)

.3 Potentially Inappropriate Safety/Nonsafety-Related Interface for Condensate Storage Tank System and Safety-Related Auxiliary Feedwater Pumps

Introduction: The inspectors identified a URI associated with a potentially inappropriate safety/nonsafety-related interface for the condensate storage tank system and the safety related AFW pumps.

Description: While performing followup inspection activities associated with URI 05000305/2006003-03, "Potentially Inappropriate Safety/Nonsafety-Related Interface for Bearing Cooling and Flushing Water to the Safety-Related Services Water Pumps," the inspectors noted that there were other systems in the plant where the interface between nonsafety-related and safety-related systems were potentially inappropriate. Specifically, the inspectors noted that the condensate storage tank was a nonsafety-related system which interfaced directly with the safety-related AFW System and questioned various design aspects related to the interface. At the end of the inspection period the licensee had not responded to the inspectors' questions about the safety/nonsafety-related interface for the condensate storage tank system and the safety-related AFW pumps. Therefore this issue was consider unresolved pending the review of the licensee's investigation and resolution of the inspectors' design interface questions (URI 05000305/2007003-03).

1R17 Permanent Plant Modifications (71111.17)

a. Inspection Scope

The inspectors' review of permanent plant modifications focused on verification that the design bases, licensing basis, and performance capability of related structures, systems or components were not degraded by the installation of the modification. The inspectors also verified that the modifications did not place the plant in an unsafe configuration. The inspection activities included, but were not limited to, a review of the design adequacy of the modification by performing a review, or partial review, of the modification's impact on plant electrical requirements, material requirements and replacement components, response time, control signals, equipment protection, operation, failure modes, and other related process requirements. As part of this inspection, the documents listed in the Attachment were reviewed.

The inspectors selected a permanent plant modification to insulate CCW system piping for review, for a total of one inspection sample.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors verified that the post-maintenance test procedures and activities were adequate to ensure system operability and functional capability. Activities were selected based upon the structure, system, or component's ability to impact risk. The inspection activities included, but were not limited to, witnessing or reviewing the integration of testing activities, applicability of acceptance criteria, test equipment calibration and control, procedural use and compliance, control of temporary modifications or jumpers required for test performance, documentation of test data, system restoration, and evaluation of test data. Also, the inspectors verified that maintenance and post-maintenance testing activities adequately ensured that the equipment met the licensing basis, TSs, and USAR design requirements. As part of this inspection, the documents listed in the Attachment were reviewed.

The inspectors reviewed post-maintenance activities associated with the following components for a total of eight inspection samples:

- EDG air box repair;
- SW CUNO filter repair;
- leak repair to instrument air compressor RT-AS-01;
- maintenance on RHR-400B, residual heat removal to containment spray supply valve;
- routine maintenance to charging pump 1-B on April 17, 2007;
- repair of supply breaker to shield building ventilation Train B;

- repair of lifting relief valves to “G” instrument air compressor; and
- maintenance on charging pump 1-B on June 12, 2007.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed surveillance testing activities to assess operational readiness and to ensure that risk-significant structures, systems, and components were capable of performing their intended safety function. Activities were selected based upon risk significance and the potential risk impact from an unidentified deficiency or performance degradation that a system, structure, or component could impose on the unit if the condition was left unresolved. The inspection activities included, but were not limited to, a review for preconditioning, integration of testing activities, applicability of acceptance criteria, test equipment calibration and control, procedural use, control of temporary modifications or jumpers required for test performance, documentation of test data, TS applicability, impact of testing relative to performance indicator reporting, and evaluation of test data. As part of this inspection, the documents listed in the Attachment were reviewed.

The inspectors selected the following surveillance testing activities for review for a total of fourteen inspection samples:

- EDG “B” safety injection test following repairs;
- EDG “B” fast start test;
- technical support center diesel generator start and load test;
- safety injection pump “A” pump and valve test (Containment Isolation Valve);
- EDG “A” airflow and temperature test;
- turbine first stage pressure instrument check;
- SW header “B” pressure sensor calibration;
- EDG “B” airflow and temperature test;
- miscellaneous valve timing;
- special ventilation zone test;
- CCW train “B” pump and valve test;
- train “A” miscellaneous valve timing test (Inservice Testing);
- EDG “A” availability test; and
- RHR train “B” pump and valve test.

b. Findings

Introduction: A finding having very low safety significance (Green) and an associated non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, “Instructions , Procedures, and Drawings,” was identified by the inspectors while reviewing surveillance testing procedures for the auxiliary building special ventilation zone (Zone SV). Specifically, the

licensee procedure for tracking the amount of in-leakage into the Zone SV did not have adequate criteria to capture degraded conditions, nor ensure that the acceptance criteria reflected the design requirements of the system.

Discussion: Between January and May 2007, during the component design basis inspection and during the daily review of newly created condition reports (CRs), the inspectors identified a number of CRs related to Zone SV. As a result of this observation, the inspectors reviewed the last performance of SP-14-0117A, "Auxiliary Building Special Ventilation Test Train A," Revision A, completed during the Fall 2006, refueling outage. The inspectors' reviewed the TS requirements and design requirements as stated in the USAR, to ensure that the requirements were adequately translated into the surveillance test.

The USAR indicated that the zone SV system was designed to maintain specified flow rates through open doors and was designed to remain operable with up to 200 square-feet of openings. The inspectors could not determine how the related test procedure ensured that these requirements were met. Additionally, during the Component Design Bases Inspection, the inspectors identified CRs which indicated roof leakage penetrating the Zone SV boundary, and the licensee identified that a floor drain provided communication across the zone boundary.

The licensee indicated that procedure FPP-08-09, "Barrier Control," was the method used to track and control in-leakage. The inspectors reviewed the items being tracked and found that the procedure tracked items through the barrier impairment permitting process, yet did not capture other issues including the breach in the boundary through the leaking roof. Because numerous CRs existed related to Zone SV issues, including multiple roof leaks, penetration leakage, and improper storage of equipment, the inspectors concluded that the licensee had multiple opportunities to recognize the impact of barrier breaches on the design requirements of Zone SV and failed to correct the problems.

Additionally, because the licensee were not sure how the design requirements were translated into procedures, the licensee issued CAP043818, "Zone SV USAR Allowed Leakage Area May Be Non-conservative." As a result, a review of the design requirements was performed and initial findings indicated that the non-conservatism may be as large as 100 square-feet, approximately 50 percent of the prior presumed allowable of 200 square-feet. As a result of these observations, the licensee modified procedure FPP-08-09 to better track barrier breaches and conservatively limit the total amount of allowed breaches until a full review could be performed.

Analysis: The inspectors determined that the licensee's failure to recognize the impact of degraded conditions, that were effectively barrier breaches, on the design requirements of Zone SV was a performance deficiency warranting further review. This issue was determined to be more than minor because, if left uncorrected, the failure to evaluate barrier breaches that did not have barrier permits could become a more significant safety concern. Specifically, if left unmonitored, the breaches without barrier permits could potentially exceed the allowable design limits.

The inspectors evaluated the finding using IMC 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations." The inspectors answered "yes" to Question 1 in the in the Significance Determination Process Phase 1 Screening Worksheet in the Containment Barrier Cornerstone column; therefore, this finding is of very low safety significance (Green).

The inspectors also determined that the finding affected the cross-cutting area of problem identification and resolution because the licensee failed to properly evaluate multiple CRs for operability and extent of condition. Specifically, the CRs associated with Zone SV roof leakage, if evaluated for extent of condition and impact on the safety related function of equipment in the zone, should have resulted in the licensee identifying that barrier breaches were not properly tracked or quantified. Additionally, an extent of condition should have revealed that the design parameters as stated in the USAR were non-conservative. (P1(c))

Enforcement: Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," states in part that activities affecting quality shall be prescribed by documented procedures of a type appropriate to the circumstances, and that include appropriate acceptance criteria. Contrary to this requirement, Procedure FPP-08-09, "Barrier Control," failed to contain requirements that appropriately tracked all barrier breaches or acceptance criteria that appropriately represented design requirements. Specifically, FPP-08-09, did not track degraded and non-conforming conditions (breaches) without barrier permits, and contained acceptance criteria that was found to be non-conservative.

The licensee entered this item into its corrective action program as CAP043818. Corrective actions to date included revisions to procedure FPP-08-09, to track barrier breaches that result from degraded conditions and provide conservative acceptance criteria. Planned corrective actions include increasing the priority of the creation of a design basis document for Zone SV ,and revising design calculations for Zone SV to ascertain the exact design basis and requirements of the system. Because this violation was of very low safety significance and it was entered into the licensee's corrective action program, this violation is being treated as a NCV consistent with Section VI.A of the NRC enforcement policy (NCV 05000305/2007003-04).

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03)

.1 Inspection Planning

a. Inspection Scope

The inspectors reviewed the Kewaunee Power Station USAR to identify applicable radiation monitors associated with measuring transient high and very high radiation areas (HRAs) including those used in remote emergency assessment. The inspectors

identified the types of portable radiation detection instrumentation used for job coverage of HRA work including instruments used for underwater surveys, fixed area radiation monitors (ARMs) used to provide radiological information in various plant areas and continuous air monitors used to assess airborne radiological conditions and consequently work areas with the potential for workers to receive a 50 millirem or greater committed effective dose equivalent. Contamination monitors, whole body counters and those radiation detection instruments utilized for the release of personnel and equipment from the Radiologically Controlled Area (RCA) were also identified.

These reviews represented two inspection samples.

b. Findings

No findings of significance were identified.

.2 Walkdowns of Radiation Monitoring Instrumentation

a. Inspection Scope

The inspectors conducted walkdowns of selected ARMs in the Auxiliary Building to verify they were located as described in the USAR and were optimally positioned relative to the potential source(s) of radiation they were intended to monitor. Walkdowns were also conducted of those areas where portable survey instruments were calibrated/repaired and maintained for radiation protection (RP) staff use to determine if those instruments designated “ready for use” were sufficient in number to support the RP program, had current calibration stickers, were operable, and were in good physical condition. Additionally, the inspectors observed the licensee’s instrument calibration units and the radiation sources used for instrument checks to assess their material condition and discussed their use with RP staff to assess whether they were used adequately. Licensee personnel demonstrated the methods for performing source checks of portable survey instruments.

These reviews represented one inspection sample.

b. Findings

No findings of significance were identified.

.3 Calibration and Testing of Radiation Monitoring Instrumentation

a. Inspection Scope

The inspectors selectively reviewed radiological instrumentation associated with monitoring transient high and/or very HRAs, instruments used for remote emergency assessment, and radiation monitors used to identify personnel contamination and for assessment of internal exposures to verify that the instruments had been calibrated as required by the licensee’s procedures, consistent with industry and regulatory standards. The inspectors also reviewed alarm setpoints for selected ARMs, for personnel contamination monitors and for portal (egress) monitors to verify that they were

established consistent with the USAR or TSs, as applicable, and were consistent with industry practices and regulatory guidance.

The inspectors assessed what actions were taken when, during calibration or source checks, an instrument was found significantly out of calibration or exceeded as-found acceptance criteria. The inspectors evaluated the licensee's actions including the determination of the instruments's previous usages and the possible consequences of that use since the prior calibration. The inspectors also discussed with RP staff the site's 10 CFR Part 61 source term (radionuclide mix) to evaluate if the calibration sources used were representative of the plant source term and that difficult to detect nuclides were scaled into whole body count dose determinations.

These reviews represented one inspection sample.

b. Findings

No findings of significance were identified.

.4 Problem Identification and Resolution

a. Inspection Scope

The inspectors reviewed licensee corrective action program (CAP) documents and any special reports that involved personnel contamination monitor alarms due to personnel internal exposures to assess whether identified problems were entered into the corrective action program for resolution. Licensee self-assessments, field observations and CAP records were also reviewed to verify that problems with radiological instrumentation or self-contained breathing apparatus were identified, characterized, prioritized, and resolved effectively using the corrective action program.

The inspectors reviewed corrective action program reports related to exposure significant radiological incidents that involved radiation monitoring instrument deficiencies since the last inspection in this area, as applicable. Members of the RP staff were interviewed and corrective action documents were reviewed to verify that follow-up activities were being conducted in an effective and timely manner commensurate with their importance to safety and risk based on the following:

- initial problem identification, characterization, and tracking;
- disposition of operability/reportability issues;
- evaluation of safety significance/risk and priority for resolution;
- identification of repetitive problems;
- identification of contributing causes; and
- identification and implementation of effective corrective actions.

The inspectors assessed whether the licensee's self-assessment, audit and/or field observation activities completed for the two year period that preceded the inspection were identifying and addressing repetitive deficiencies or significant individual deficiencies in problem identification and resolution, as applicable.

These reviews represented three inspection samples.

b. Findings

No findings of significance were identified.

.5 Radiation Protection Technician Instrument Use

a. Inspection Scope

The inspectors selectively determined whether calibrations for those instruments recently used and for those designated for use were current and had not lapsed prior to use. The inspectors also discussed instrument calibration methods and source response check practices with RP staff and observed staff compete instrument source checks prior to use.

These reviews represented one inspection sample.

b. Findings

No findings of significance were identified.

.6 Self-Contained Breathing Apparatus (SCBA) Maintenance/Inspection and User Training

a. Inspection Scope

The inspectors reviewed aspects of the licensee's respiratory protection program for compliance with the requirements of Subpart H of 10 CFR Part 20 and to assess whether SCBA were properly maintained and ready for emergency use. The inspectors reviewed the status and surveillance records of SCBAs staged for emergency use in various areas of the plant and assessed the licensee's capability for refilling and transporting SCBA air bottles to and from the control room during emergency conditions. The inspectors verified that control room staff designated for the active on-shift duty roster including those individuals on the station's fire brigade were trained, respirator fit tested, and medically certified to use SCBAs. Additionally, the inspectors reviewed respiratory protection equipment qualification records for the emergency response organization's radiological emergency teams and for other key emergency responders and repair teams to assess whether a sufficient number of staff were qualified to fulfill emergency response positions to meet the requirements of 10 CFR 50.47. The inspectors also reviewed the respiratory protection training lesson plan to assess its overall adequacy consistent with Subpart H of 10 CFR Part 20 and to evaluate whether personal SCBA air bottle change-out was adequately covered as part of the training.

The inspectors walked down the bottled air supply rack and spare air bottle stations located outside the main control room, and inspected SCBA equipment maintained in the control room and SCBA equipment staged for emergency use in various other areas of the plant. During the walkdowns, the inspectors examined several SCBA units to assess their material condition, to verify that air bottle hydrostatic tests were current,

and to verify that bottles were pressurized to meet procedural requirements. The inspectors reviewed records of SCBA equipment inspection and testing and observed an RP technician demonstrate the methods used to conduct the inspections and functional tests to evaluate if these activities were performed consistent with procedure and the equipment manufacturers recommendations. The inspectors also ensured that the required, periodic air cylinder hydrostatic testing was documented and up to date, and that the Department of Transportation required retest air cylinder markings were in place for several randomly selected SCBA units and spare air bottles. Additionally, the inspectors reviewed the vendor training certificate for the individual that performed the repair of SCBA pressure regulators to assess whether those personnel that performed maintenance on components vital to equipment function were qualified.

These reviews represented two inspection samples.

b. Findings

No findings of significance were identified.

2PS3 Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program (71122.03)

.1 Inspection Planning

a. Inspection Scope

The inspectors reviewed the 2005 and 2006 Annual Radiological Environmental Operating Reports, and licensee assessment results to evaluate whether the REMP was implemented as required by the Radiological Environmental Technical Specifications (RETS) and the Offsite Dose Calculation Manual (ODCM). The inspectors reviewed the report for changes to the ODCM with respect to environmental monitoring and commitments in terms of sampling locations, monitoring and measurement frequencies, land use census, interlaboratory comparison program, and data analysis. The inspectors reviewed the ODCM to identify environmental monitoring stations and evaluated licensee self-assessments, audits, licensee event reports, and interlaboratory comparison program results. The inspectors reviewed the USAR for information regarding the environmental monitoring program and meteorological monitoring instrumentation. The inspectors also reviewed the scope of the licensee's audit program to determine if it met the requirements of 10 CFR 20.1101(c). This review represented one sample.

b. Findings

No findings of significance were identified.

.2 Onsite Inspection

a. Inspection Scope

The inspectors walked down selected air sampling stations (50 percent) and approximately 20 percent of the thermoluminescent dosimeter monitoring stations to determine whether they were located as described in the ODCM and to determine the equipment material condition.

The inspectors observed the collection and preparation of environmental air samples. Other samples (e.g. milk, water, vegetation samples) were not collected during the inspection week. The environmental sampling program was evaluated to determine if it was representative of the release pathways as specified in the ODCM and that sampling techniques were performed in accordance with station procedures.

The inspectors evaluated the condition of the meteorological instruments using observations and record reviews, and assessed whether the equipment was operable, calibrated, and maintained in accordance with guidance contained in the USAR, NRC Safety Guide 23, and licensee procedures. The inspectors assessed whether the meteorological data readout and recording instruments, including computer interfaces and data loggers, that measure and record wind speed, wind direction, delta temperature, and atmospheric stability measurements were available on the licensee's computer system and whether this information was available in the control room.

The inspectors reviewed each event documented in the Radiological Environmental Operating Report that involved missed samples, inoperable samplers, lost thermoluminescent dosimeters, or anomalous measurements for the cause and corrective actions.

The inspectors reviewed the ODCM for significant changes that resulted from land use census modifications, or sampling station changes made since the last inspection. This included a review of technical justifications for changed sampling locations. The inspectors assessed whether the licensee performed reviews required to ensure that the changes did not affect their ability to monitor the impacts of radioactive effluent releases on the environment.

The inspectors reviewed the calibration and maintenance records for five air samplers to evaluate operating parameters. The inspectors reviewed results of the vendor's interlaboratory comparison program and quality assurance programs to assess the adequacy of environmental sample analyses performed by the licensee.

The inspectors reviewed quality assurance audit results of the REMP to determine whether the licensee met the TS/ODCM requirements.

These reviews represent six samples.

b. Findings

No findings of significance were identified.

.3 Unrestricted Release of Material From the Radiologically Restricted Area

a. Inspection Scope

The inspectors observed the access control location where the licensee monitored potentially contaminated material leaving the radiologically controlled area and inspected the methods used for control, survey, and release of material from this area. The inspectors observed the performance of personnel surveying and releasing material for unrestricted use to verify that the work was performed in accordance with plant procedures.

The inspectors evaluated whether the radiation monitoring instrumentation was appropriate for the radiation types present and was calibrated with appropriate radiation sources that represented the expected isotopic mix. The inspectors reviewed the licensee's criteria for the survey and release of potentially contaminated material and verified that there was guidance on how to respond to an alarm indicating the presence of licensed radioactive material. The inspectors evaluated the licensee's equipment to determine if radiation detection sensitivities were consistent with the NRC guidance contained in IE Circular 81-07 and IE Information Notice 85-92 for surface contamination, and Health Physics Position (HPPOS)-221 for volumetrically contaminated material.

The inspectors reviewed the licensee's procedures and records to verify that the radiation detection instrumentation was used at its typical sensitivity level based on appropriate counting parameters such as counting times and background radiation levels. The inspectors assessed whether the licensee had established a "release limit" by altering the instrument's typical sensitivity through such methods as raising the energy discriminator level or locating the instrument in a high radiation background area.

These reviews represent two samples.

b. Findings

No findings of significance were identified.

.4 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed the licensee's self-assessments, audits, CRs, and special reports related to the radiological environmental monitoring program since the last REMP inspection to determine if identified problems were entered into the corrective action program for resolution. The inspectors also assessed whether the licensee's self-assessment program was capable of identifying and addressing repetitive deficiencies or significant individual deficiencies that were identified by the problem identification and resolution process.

The inspectors also reviewed corrective action documents related to the REMP that affected environmental sampling and analysis, and meteorological monitoring instrumentation. Staff members were interviewed and documents were reviewed to determine if the following activities were being conducted in an effective and timely manner commensurate with their importance to safety and risk:

- initial problem identification, characterization, and tracking;
- disposition of operability/reportability issues;
- evaluation of safety significance/risk and priority for resolution;
- identification of repetitive problems;
- identification of contributing causes;
- identification and implementation of effective corrective actions;
- resolution of NCVs tracked in the corrective action system; and
- implementation/consideration of risk significant operational experience feedback.

This review represented one sample.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification (71151)

Cornerstone: Initiating Events

Reactor Safety Strategic Area

a. Inspection Scope

The inspectors used Nuclear Energy Institute NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, to assess the accuracy of the PI data. The inspectors' review included, but was not limited to, conditions and data from logs, licensee event reports, corrective action program documents, and calculations for each PI specified. As part of this inspection, the documents listed in the Attachment were reviewed.

The Unplanned Power Changes per 7000 Critical Hours PI for the period of March 2006 through March 2007 was reviewed for a total of one inspection sample.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review of Identification and Resolution of Problems

a. Inspection Scope

As part of the routine inspections documented in this inspection report, the inspectors verified that the licensee entered the problems identified during the inspection into their corrective action program. Additionally, the inspectors verified that the licensee was identifying issues at an appropriate threshold and entering them in the program, and verified that problems included in the program were properly addressed for resolution. Attributes reviewed included: problems were completely and accurately identified; timeliness was commensurate with the safety significance; evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent of condition reviews, and previous occurrences reviews were proper and adequate; and classification, prioritization, and focus were commensurate with safety and sufficient to prevent recurrence of the issue.

b. Findings

No findings of significance were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

To assist with the identification of repetitive equipment failures and specific human performance issues for follow-up by the inspectors, the inspectors performed a daily screening of items entered into the licensee's corrective action program. This review was accomplished by reviewing daily CAP summary reports and attending corrective action review board meetings.

b. Findings

No findings of significance were identified.

.3 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's corrective action program to identify trends that might indicate the existence of a more significant safety issue. The review was focused on trending program deficiencies, which considered licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the period of January through June 2007, with some examples extending beyond those dates when the scope of a trend warranted.

The inspectors reviewed adverse trend CAP report items associated with various problems that occurred during the period along with CAPs closed to trending. The review included issues that were documented outside the normal corrective action program, departmental problem/challenges lists, and self-assessment reports. The inspectors compared and contrasted the licensee's trends with those discussed in the licensee's trending documents. Corrective actions associated with a sample of the issues identified in the licensee's trend report or through interviews with licensee management, were reviewed for adequacy. The inspectors focused on those corrective actions pertaining to the trending program.

The inspectors also evaluated the report against the requirements of the licensee's corrective action program as specified in the associated administrative procedure; 10 CFR Part 50; Appendix B. Documents reviewed during this inspection are listed in the Attachment to this report.

b. Assessment and Observation

The inspectors requested a list of all CAPs since January 2007 that included the keyword "trend." Approximately 150 CAPs were reviewed and almost all were categorized as "close to trend," with one identified adverse trend. The inspectors performed an independent search for adverse trends and confirmed the information given. CAP041495, "CAPs Needing Trend Coding," described that there was a backlog of over 5000 CAPs that were in the "Trend Review Pending" state. After discussions with the Assessments CAP Liaison, the inspectors determined that the licensee did not have a plan or path forward to work this backlog down, nor did the licensee have the resources needed to accomplish the work. In reviewing the Kewaunee 2006 NRC Quarterly Inspection Reports, this issue was potentially related to the "Hot Button" issue described in Inspection Report 2006-003 and 2006-005. The licensee has recently transitioned from "Hot Buttons" to "Focus on Four" categories for categorizing and trending CAPs due to inadequacies in the process. The inspectors concluded that the large backlog of CAPs needing trending related to the previous "Hot Button" inadequacies described in the aforementioned inspection reports remained an area for improvement in trending CAPs.

No findings of significance were identified.

.4 Selected Issue Follow-Up: Station Main Fire Pump Degradation

a. Inspection Scope

The inspectors performed a review of the licensee's CAPs that were associated with a trend. During this review, the inspectors noted that CAP042087, "Fire Pump refurbishment/replacement," described a declining trend in both station main fire pumps performance. The inspectors reviewed the adequacy of the corrective actions for CAP042087.

b. Assessment and Observation

The inspectors evaluated the licensee's corrective actions, which included work orders and work requests. The inspectors also interviewed the System Engineer, who described the trending performed for both station main fire pumps.

No findings of significance were identified.

4OA3 Followup of Events and Notices of Enforcement Discretion (71153)

Personnel Performance During Non-Routine Plant Evolutions and Events

a. Inspection Scope

The inspectors reviewed personnel performance to unplanned non-routine evolutions to review operator performance and the potential for operator contribution to the evolution. The inspectors observed or reviewed records of operator performance during the evolution. Reviews included, but were not limited to, operator logs, pre-job briefings, instrument recorder data, and procedures. As part of this inspection, the documents listed in the Attachment were reviewed.

The inspectors evaluated the following evolutions for a total of three inspection samples:

- EDG "A" and "B" declared inoperable due to high outside air temperature;
- EDG jacket water heat exchanger design basis performance analysis is not bounding; and
- feedwater regulating valve oscillating causing fluctuations in thermal reactor power.

b. Findings

No findings of significance were identified.

4OA6 Meetings

.1 Exit Meeting

The inspectors presented the inspection results to Ms. L. Hartz and other members of licensee management on July 11, 2007. The licensee acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

.2 Interim Exit Meetings

Interim exits were conducted for:

- the results of the heat sink biennial inspection were presented to the Plant Manager, Mr. M. Crist, and other members of licensee management and staff at the conclusion of the inspection on April 20, 2007;
- the radiation monitoring instrumentation and protective equipment program under the occupational radiation safety cornerstone with Mr. M. Crist on June 29, 2007. A technical debrief was conducted with Mr. M. Crist on May 11, 2007; and
- the radiological environmental monitoring program under the public radiation safety cornerstones inspection with Mr. M. Crist on June 29, 2007.

4OA7 Licensee-Identified Violations

None.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee
L. Armstrong, Site Engineering Director
T. Breene, Nuclear Licensing Manager
M. Crist, Plant Manager
M. Hale, Radiation Protection and Chemistry Manager
L. Hartz, Site Vice-President
W. Henry, Maintenance Manager
J. Ruttar, Operations Manager
S. Wood, Emergency Preparedness Manager

Nuclear Regulatory Commission
J. Cameron, Chief, Division of Reactor Projects, Branch-5

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000305/2007003-01	VIO	Failure to Perform a 10 CFR 50.59 Evaluation for Compensatory Measures Associated with a Procedure Change (Section 1R15.b.1)
05000305/2007003-02	URI	Inadequate Equipment and References for Response to an Earthquake (Section 1R15.b.2)
05000305/2007003-03	URI	Inappropriate Safety/Nonsafety-Related Interface for Condensate Storage Tank System and Safety-Related Auxiliary Feedwater Pumps (Section 1R15.b.3)
05000305/2007003-04	NCV	Inadequate Procedure for Surveillance Testing of Auxiliary Building Special Ventilation Zone (Section 1R22.b)

Closed

05000305/2006003-04	URI	Adequacy of Compensatory Actions for Potential Turbine Missile Strike of Control Room Ventilation Cooling (Section 1R15.b.1)
05000305/2006016-01	URI	Adequacy of 10 CFR 50.59 Screening for Procedure Change (Section 1R15.b.1)
05000305/2007003-04	NCV	Inadequate Procedure for Surveillance Testing of Auxiliary Building Special Ventilation Zone (Section 1R22.b)

LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

1R01: Adverse Weather

E-0-05; Response to Natural Events; Revision X
GMP-172; Tornado Missile Hazard Monthly Inspection; Revision 4
GNP-12.06.01; Cold Weather Operations; Revision D
WO 7-1243; Site Monthly Missile Hazard Inspection Results; May 14, 2007

1R04: Equipment Alignment

CR012342; CC-903 Sealed Versus Locked Per N-CC-31-CL
N-CC-31-CL; Component Cooling System Prestartup Checklist; Revision AB
N-DGM-10CLB; Diesel Generator B Prestartup Checklist; Revision O
SP-05B-344; Auxiliary Feedwater Pump A Low Suction and Low Discharge Pressure Trip Test; Revision C
50.59 Applicability Review of SP-05B-344; Auxiliary Feedwater Pump A Low Suction and Low Discharge Pressure Trip Test; Revision C
Drawing OPERXK-100-19; Flow Diagram Component Cooling System; Revision AL
Drawing OPERXK-100-20; FLOW DIAGRAM Component Cooling System; Revision AC
Top 18 components Sorted by F-V Data
Top 21 Components Sorted by RAW Data

1R05: Fire Protection

Fire Plan Drawing PFP-4; Screen House and Tunnel; Revision B
Fire Plan Drawing PFP-5; 1A Diesel Generator and Diesel Generator Day Tank Rooms; Revision B
Fire Plan Drawing PFP-6; 1B Diesel Generator and Diesel Generator Day Tank Rooms; Revision C
Fire Plan Drawing PFP-7; CO2 Storage Tank Room; Revision D
Fire Plan Drawing PFP-8; 480V Switchgear Bus 1-51 and 1-52 Room; Revision C
Fire Plan Drawing PFP-9; 480V Switchgear Bus 1-61 and 1-62 Room and Auxiliary Feedwater Pump Area; Revision D
Fire Plan Drawing PFP-11; Turbine Building Basement; Revision E
Fire Plan Drawing PFP-12; Turbine Building Mezzanine - Main Transformer A, Main Transformer B, Main Transformer C, Main Aux Trans (MAT), Reserve Aux Trans (RAT), Tertiary Aux Trans (TAT); Revision D
Fire Plan Drawing PFP-14; Turbine Building - Operating Floor; Revision C
Fire Plan Drawing PFP-16; Refueling Water Storage Tank and Containment Spray Pump Area; Revision C
Fire Plan Drawing PFP-17; Charging Pump, Boric Acid Concentrate Pump and Residual Heat Removal (RHR) Pump Pit Areas; Revision E
Fire Plan Drawing PFP-19; Condensate Storage and Reactor Make Up Water Storage Room and Adjacent Areas; Revision D

Fire Plan Drawing PFP-23; Spent Fuel Pool, Waste Handling and Main Steam Relief Valve Areas; Revision D

1R06: Flood Protection Measures

CAP043529; Safeguard Alley Trench Water Level Reported Higher Than Normal
CAP043844; NRC Resident Inspector Questions Regarding Corrosion of Train A Service Water (SW) Piping in Safeguards Alley Trench
CE020253; NRC Resident Inspector Questions Regarding Corrosion of Train A SW Piping in Safeguards Alley Trench

1R07: Biennial Heat Sink Performance

A-SW-02; Abnormal SW System Operation; Revision U
C11037; Performance Evaluations of RHR Pump Pit FCUs; Revision 0
C11674; Evaluation of CCW HX October 10, 2004 test results; dated June 9, 2005
C11402; CC IIX Evaluation for Tube Vibration by EFCO; dated May 11, 2002
CAP022293; Evaluate Use of Term "Water Hammer" in Component Flushing Procedures
CAP022299; Include RHR Pump Pit Fan Coil Unit (FCU) in GL 89-13 Performance Monitoring Procedures
CAP022321; Inspection of RHR Pump Pit 1A FCU
CAP037382; Component Cooling Heat Exchanger 1A Tube Plugging
CAP 026975; Incorrect Acceptance Criteria Used For Trial CCW H/X Performance Test
CAP 043334; PI&R Self Assessment AFI; Violations and Findings
CAP 042962; RHR Pump Pit FCU 1A Tube Plugging
CAP 042923; 1A RHR FCU Cooling Coil Tube Leak
CE014599; Condition Evaluation for CAP022293 CHEM 43.007; SW Dead Leg Chemical Treatment; Revision F
CHI-0004; System Chemical Control; Revision 9
CMP-31-02; CCW HX Tube Cleaning (QA-1); Revision H
Component Cooling Heat Exchangers' Drawings; November 25, 2002
Component Cooling Heat Exchangers' Specification Sheet; October 15, 2002
GMP-137; CCW HX 1A Inspection and Cleaning; September 15, 2006
GMP-137; CCW HX 1A Inspection and Cleaning; November 2, 2004
GMP-137; RHR FCU 1A Inspection and Cleaning; January 6, 2005
GNP-01.32.01; HX Performance Monitoring Program Evaluation Procedure; Revision H
OPR-158, Operability Determination of Inlet SW Up to 83 F; dated August 28, 2006
PMP-17-15, ACA-RHR Pump Pit FCU Performance Monitoring (QA-1); March 14, 2007
PO 70151593, Inspection and Cleaning of Lake Intake Structures; November 13, 2006
SA 13170 Heat Sink Focused Self Assessment Report; November 20, 2006
Seaview Diving Contractors report on Inspection and Cleaning of SW Intake Structures and Forebays Inspection and Cleanings of October 27, 2004
Seaview Diving Contractors report on Inspection and cleaning of SW Intake Structures and Forebays Inspection and Cleanings of November 13, 2006
Trane Approval Drawings; RHR FCU 1A; March 30, 1968
Underwater Marine Contractors Report on SW Intake Tunnel Inspection; November 27, 2006
WO 03-12087; CCW HX 1A Inspection and Cleaning; November 2, 2004
WO 03-12124; CCW HX 1A Inspection and Cleaning performed November 2, 2004
WO 04-8620; RHR FCU 1A Inspection and Cleaning; January 6, 2005

WO 04-010730-000; CC HX 'A' Performance Monitoring; October 13, 2004
WO 05-13685; CCW HX 1A Inspection and Cleaning; September 15, 2006

Condition Reports Generated as a Result of NRC Inspection
CAP 044011; AB Mezz Cooling May not be Adequate Post-Loss of Coolant Accident
CAP 044014; NRC Identified C11343 Using Superseded Inputs
CAP 044034; HX Performance Monitoring and Tube Plugging Using Incorrect SW Flow Rates
CAP044040; NRC Identified that Cap022293 Was not Closed Appropriately

1R11: Licensed Operator Requalification Program
LRC-HI-SEE01

1R12: Maintenance Effectiveness
CA022210; Maintenance Rule Program Issues
CA026778; Revise maintenance Rule (a)(1) Action Plan
CA028851; Update Maintenance Rule (a)(1) Action Plan
CA031251; Revise Maintenance rule (a)(1) Action Plans
CA029308; Four Maintenance Rule (a)(1) Corrective Actions Extended
CAP's on Instrument Air Data - April 30, 2007
CAP Word Search ; Detailed Description for CCW; May 22, 2007
CAP027854; Minor Leak on Snubber RAC-H38; Initiated Work Request 05-1929
CAP028152; While Investigating the Noise and Vibration Issues Associated with CC-613A, It was Noted that the Handwheel on CC-613B does not have a Retaining Nut Installed
CAP029071; FI-18220 Pegged High
CAP029197; Air Compressor G Tripped on High Temperature
CAP029805; Air compressor G Maintenance Rule (a)(1) Evaluation
CAP029916; 1A-503-2 Operability Affecting SW-4B Operability
CAP030038; SER Wires to SO15 Wired Backwards in Air Compressor A Control Cabinet
CAP030590; Air Compressor B Cylinder Water Temp High
CAP030742; Maintenance Rule Evaluation (MRE) Umbrella CAP for First Quarter of 2006
CAP031257; Maintenance Rule Program Issues
CAP031987; C 1A Compressor has an Air Leak
CAP032177; F Air Compressor Air Leak from the Top North side of the Unit
CAP032818; MRE Umbrella CAP for Second Quarter of 2006
CAP034968; MRE Umbrella CAP for Third Quarter of 2006
CAP035537; Failure of Air Compressor F
CAP035543; F Air Compressor Post-Maintenance Testing Failed Due to Leak on Discharge Hose
CAP035562; Unexpected Risk During Air compressor Outage
CAP035572; Probabilistic Risk Assessment (PRA) Color Red During Loss of Air Compressors
CAP035666; Air Compressor 1C SW Backup Regulator Pressure Out of Band
CAP037781; Regulator 3610032 Found with Excessive Leakage During ICP-35-22
CAP037853; Revise Maintenance Rule (a)(1) Action Plan
CAP037964; MRE Umbrella CAP for Fourth Quarter of 2006
CAP038067; Regulator for SW-301B Found High Out of Tolerance During Testing
CAP038170; Instrument Air Sample Line Leakage has Increased
CAP038244; Auto Start of All Available Air Compressors
CAP040064; Air Compressor G Tripped on HP Air Outlet Temperature High

CAP040211; Update Maintenance Rule (a)(1) Action Plan
CAP040391; FI-18220 Out of Spec During ICP-31-02
CAP040722; Out of Spec During Performance of ICP-31-17
CAP040731; F Station Air Compressor Intercooler Pressure not within Required Parameters
CAP040892; CAP043738; Workers Signed on to Incorrect Tag Out for 1C Air Compressor
CAP040925; Potential Degradation of Both Station Air Compressors
CAP041737; Leak on After Cooler 1A
CAP042086; Flow Indicator Continually Pegged High (18220)
CAP042405; G Air Compressor Relief Valves are Lifted
CAP043504; 1F Station and Instrument Air Compressor
CAP043768; Unsatisfactory Leak Check Following Maintenance
CAP043827; Revise Maintenance rule (a)(1) Action Plans
CAP043828; Evaluate the Swapping Frequency of the 1F and 1G 1ACompressors to Increase Reliability
CAP043866; Hot Weather Plan/Procedures Need to be Reviewed for STA and Instrument Air Compressors
CAP043870; Install Remotely Operated Monitoring Equipment on the TB Basement Cooling Water Strainer
CAP042405; G Air Compresser Relief Valves are Lifted
CAP044413; NRC Identified Two MREs Not Generated by the Site
CEO19657; Out of Spec During Performance of ICP-31-17
MRE002447; Perform MRE on WR 04-2681 - Air Compressor G HP Air Out High Trip
MRE002561; Air Compressor G Tripped
MRE002613; Perform an MRE on WR 05-1273 - Broken 3/8" Tubing Line in Air compressor G
MRE002698; Perform an MRE on WR 05-2369 - Air Compressor G Tripped on High HP Outlet Temp
MRE002739; Air Compressor G Tripped on High Temperature
MRE002768; Perform an MRE on WR 05-3878 - SW-3A Close Stroke Time Increase
MRE002787; Perform an MRE on WR 05-4051 - SD-3A Failed Its As Found Leak Test Per ICP-06-01
MRE002843; Perform an MRE on WR 06-1342 - SW Leak on Line Branch to Diesel Generator B
MRE002844; Perform an MRE on WR 06-1083 - SW-1306A Failed to operate in Auto
MRE002845; Perform an MRE on WR 06-1317 - SW-30A-1 and SW-30A-2 Accumulator Leakrate Test
MRE002846; SW Pump 1B1 Running with Discharge Valve Closed
MRE002849; Out of Tolerances Found During Performance of SW-1306B AOV Test
MRE002858; Perform an MRE on WR 06-1963 - SW Pump B1 SW Backup Regulator Failed to Pickup
MRE002859; Perform an MRE on CAP 34269 - SW Pump A2 Backup Seal Water Regulator Failure
MRE002860; Perform an MRE on CAP 33582 - SW-30B-1 and SW-30B-2 Accumulator Leak Rate
MRE002869; B2 SW Pump Cuno Filter Canister Alignment Valve Handle is Broken
MRE002878; Out of Tolerance During Performance of SP 02-232
MRE002879; Out of Tolerance Found on SW Header Pressure Switch
MRE002884; Perform an MRE on WR 06-2732 - Failure of Air Compressor F
MRE002889; Perform an MRE on WR 06-2451 - SWP B1 Cuno filter Alignment Valve Will Not Move

MRE002898; Perform an MRE on WR 06-2936 - Air compressor G Tripped
MRE002901; Perform an MRE on WR 06-2956 - SWP A1 Regulator Failure
MRE002919; SW-1300B Failed During Manual Operation
MRE002956; Auto Start of all Available Air Compressors
MRE003020; Cuno Filter Housing Valve Seized
MRE003022; Air Compressor G Tripped on HP Air Outlet Temperature High
MRE003023; Failure of RT-SW-02C
MRE003038; Out of Spec During Performance of ICP-31-17
MRE003050; SW Pump A2 Bearing Seal Water Flow Low
MRE003072; Unexpected Annunciator 47053-P/SER 98, SW Pump B2 Bearing/Seal Water Flow Low
RT-AS-01; 1A Compressor Backup SW Regulator and Performance Testing: Revision O
Structures, Systems, and Components Performance Criteria Sheet, "System 02 Service Water"; June 16, 2003
Instrument Air Compressors Data - October, 2005 - March, 2007
Maintenance Rule (a)(1) Template for Instrument Air; Presented October 25, 2006
Maintenance Rule (a)(1); Station and Instrument Air - Category A; First Quarter 2007
Maintenance Rule (a)(1) Evaluation - G Air Compressor Data
Maintenance Rule Scoping Questions, "Service Water"; June 12, 2007
Maintenance Rule System Basis, "Service Water"; Revision 10
SW Data; System 02, Function 01; November, 2005 - April, 2007
SW Data; System 02, Function 02; November, 2005 - April, 2007
SW Data; System 02, Function 03; November, 2005 - March, 2007
SW Data; System 02, Function 04; November, 2005 - March, 2007
SW Data; System 02, Function 06; November, 2005 - April, 2007
SW Data; System 02, Function 08; November, 2005 - April, 2007
Station and Instrument Air System Data; System 01, Function 02; October, 2005 - March, 2007
Station and Instrument Air System Data; System 01, Function 04; October, 2005 - March, 2007
Station and Instrument Air System Data; System 01, Function 05; October, 2005 - March, 2007
System 31 PMs Completed List From May 1, 2006 - May 22, 2007
System 31 Work Orders (WOs) Initiated List From May 1, 2006 - May 22, 2007
WO Report, "Worker Orders Initiated From June 1, 2005 - June 12, 2007

1R13: Maintenance Risk Assessments and Emergent Work Control

Emergent Work risk Evaluation Data; Addition of DCR-3668 Activities, Moved 'F' Air Compressor to Friday; April 12, 2007

1R15: Operability Evaluations

ACE003412; Diesel Generator A Air Intake Filter Housing to Turbo is Cracked
CA031451; HX Performance Monitoring and Tube Plugging Using Incorrect SW Flow Rates
CE020208; Emergency Diesel Generator (EDG) Jacket Water HX Design Basis Performance Analysis is not Bounding
CAP043450; Diesel Generator A Air Intake Filter Housing to Turbo is Cracked
CAP043556; EDG Jacket Water HX Design Basis Performance Analysis is not Bounding
CAP044034; HX Performance Monitoring and Tube Plugging Using Incorrect SW Flow Rates
CAP044276; Diesel Generator A Ventilation Measured Flow Readings Lower than Assumed in Calc C10044; Revision 1
CAP044316; Differential Temperatures in WO 07–2513 were Greater than Utilized in OD 151

CAP044343; Unplanned Entry into RED Risk Level (PRA)
CAP044344; Elevated Outdoor Air Temperatures
CAP044483; Additional Information Regarding Diesel Generator Jacket Water Coolers
CAP044506; Diesel Generator B Ventilation Measured Flow Readings Lower than Assumed in Calc C10044, Revision 1
CR013788; NRC Resident Concern on Non-Safety to Safety Interface Condensate to Auxiliary Feed System
D/G A Heat Transfer and Fouling Trends Data
D/G B Heat Transfer and Fouling Trends Data
GNP 01.29.01; Confined Space Entry Program; Revision M
MRE003068; Diesel Generator A Air Intake Filter Housing to Turbo is Cracked
Diesel Generator Jacket Water Heat Exchanger Briefing Sheet
MKW Power Systems Inc. Correspondence; EMD 645E4 Diesel Engine Ratings at Elevated Temperatures; June 11, 1992
PMP-10-10; DGM - Barring Over Engine; Revision 8
RAS Documentation of CAP044506; May 3, 2007
SP-42-312A; Diesel Generator A Availability Test; Revision Z
50.59 Applicability Review of SP-42-312A; Revision Z
SP-42-312B; Diesel Generator B Availability Test; Revision AB
50.59 Applicability Review of SP-42-312B; Revision AB
SW Minimum Assumed Available Flow to SR Hxs Data
WO 01-000079-000; Generator Diesel Generator 1B; Support to Include Pressure Gauge Calibration and Installation
WO 01-000080-000; Generator Diesel Generator 1A; Support to Include Pressure Gauge Calibration and Installation
WO 01-008440-000; Generator Diesel Generator 1A; Install New Duplex Fuel Oil Filter Assembly
WO 01-008441-000; Generator Diesel Generator 1B; Install New Intake Filter Assembly
WO 01-008442-000; Generator Diesel Generator 1A; Install New Intake filter Assembly
WO 07-002512-000; Fan - Diesel Generator Room Vent Supply Fan 1B
WO 07-002513-000; Fan - Diesel Generator Room Vent Supply Fan 1A
WO 07-003912-000; Plant System/Diesel Generator - Mechanical; Filter Intake Housing for Turbo is Cracked
Control Room Log; Night Shift; April 29, 2007
Corrective Action Program Search Log Dated March 30, 2007
Design Change 3210; EDG Air Filter Upgrade Design Description
Diesel Generator 1A Operations Log; April 26, 2007
Drawing A-205; General Arrangement, Turbine and Administration Building, Mezzanine Floor; Revision AF
Drawing D-70006; Switch, Gage and Instrument Location Diagram; August 6, 1979
Emergent Work Risk Evaluation; Diesel Generators A and B Inoperable Due to Outside Air Temperature Limitations Being Exceeded: April 29, 2007
Engine Systems, Inc.; Certificate of Conformance - Model 20-645-E4
Engine Systems, Inc.; Filter Modification - Quotation 2000802; February 26, 2001
Engine Systems, Inc.; Seismic Evaluation of Intake Air Filter Assembly - P/N ES150801; October 11, 2001
Kewaunee Mentoring/Position Specific Guide: ES.HXP.M.001.K, Generic Letter 89-13 HX Thermal Performance Engineer; Revision A
Kewaunee Nuclear Power Plant (KNPP) Asset Information Report; March 30, 2007

Kewaunee Plant Configuration Changes and Relative Core Damage Frequency Data; April 9 - April 16, 2007
Tagout Group Online Cycle 29; 10DGM; Diesel Generator A Filter Intake Housing for the Turbo is Cracked; March 30, 2007

1R17: Permanent Plant Modifications

CA031642; CAP Auxiliary Building Mezzanine Cooling May Not Be Adequate Post LOCA
CA031684; CAP Auxiliary Building Mezzanine Cooling May Not Be Adequate Post LOCA
CA032061; CAP Auxiliary Building Mezzanine Cooling May Not Be Adequate Post LOCA
CAP044011; CAP Auxiliary Building Mezzanine Cooling May Not Be Adequate Post LOCA
CAP044034; Heat Exchanger Performance Monitoring and Tube Plugging Using Incorrect Service Water Flow Rates
CE020287; CAP Auxiliary Building Mezzanine Cooling May Not Be Adequate Post LOCA
DCR 3686; Insulate Components at 606' Level of the Auxiliary Building to Reduce Area Heat Loads; Revision 0
50.59 Applicability Review of DCR 3686; Revision 0
N-ACA-17; Auxiliary Building Ventilation System; Revision AA
OBD000169; CAP Auxiliary Building Mezzanine Cooling May Not Be Adequate Post LOCA
PCR031427; CAP Auxiliary Building Mezzanine Cooling May Not Be Adequate Post LOCA
Reasonable Assurance of Safety 030; Auxiliary Building Mezzanine Fan Coil Unit Service Water Temperature Limit; Revision 0
50.59 Applicability Review of Reasonable Assurance of Safety 030; Revision 0
Reasonable Assurance of Safety 030; Auxiliary Building Mezzanine Fan Coil Unit Service Water Temperature Limit - 80 degrees Fahrenheit; Revision 1
Reasonable Assurance of Safety 030; Auxiliary Building Mezzanine Fan Coil Unit Service Water Temperature Limit - 80 degrees Fahrenheit; Revision 2
Root Cause Evaluation (RCE-720); Service Water to B Diesel Generator
Technical Evaluation of the Effects of Post-LOCA Temperature Increases on Equipment at Kewaunee Power Station in the Auxiliary Building Mezzanine

1R19: Post-Maintenance Testing

ACE003431; SBV Train B Inoperable
CA032242; SBV Train B Inoperable
CAP044013; BAST Room Floor Drain Open to Non-SV/Non-Steam Exclusion Area
CAP044432; SBV Train B Inoperable
CMP-02-01; SW Dual Filter Cartridge Replacement; Revision E
CMP-35-11; CVC - Charging Pump Overhaul; Revision U
EFR031714; SBV Train B Inoperable
FPP-08.09; Barrier Control; Revision 12
GMP-127; Requirements and Guidelines for Scaffold Construction and Inspection; Revision P
GMP-239; Limitorque MOV Starter, Motor, and Actuator Maintenance; Revision I
GMP-243; Inspection and Testing of Overload Relay Heaters Electrical Maintenance; Revision B
MRE003088; SBV Train B Inoperable
PMP-01-03; AS - Station Air compressors A, B, and C Maintenance; Revision S
RT-AS-01; 1A Compressor Backup SW Regulator and Performance Testing; Revision O
RT-CVC-35E; Charging Pump Operability Test; Revision A
SP-24-107B; SBV Train B Operability Test; Revision M

SP-24-107D; SBV Train B Monthly Test; Revision A
WO 06-004602-000; Actuator - Unloading Valve Air Comp 1C SV
WO 07-001452-000; 6 In. Valve-Mtr Oper-RHR400B/MV32126 RHR Pump B Sply to ICS Pump B
WO 07-002539-000; Motor- Charging Pump 1B - Mechanical Maintenance
WO 07-003963-000; Pump SW Pump 1B2
WO 07-006318-000; Motor Shield Building Vent Fan 1B
Emergent Work Risk Evaluation: Added SP-36-197 "Reactor Coolant Hot Leg Pressure Loop 18 Month Calibration" to the PRA Model; June 12, 2007
Quality Control Inspection Record; WO 07-006318-000; May 4, 2007

1R20: Outage Activities

ACE003431; SBV Train B Inoperable
CA032242; SBV Train B Inoperable
CAP043792; The NRC RI Questioned if Elevator Doors are Zone SV Boundaries
CAP043818; Zone SV USAR Allowed Leakage Area May be Non-conservative
CAP044013; BAST Room Floor Drain Open to Non-SV/Non-Steam Exclusion Area
CAP044432; SBV Train B Inoperable
EFR031714; SBV Train B Inoperable
FPP-08.09; Barrier Control; Revision 12
GMP-127; Requirements and Guidelines for Scaffold Construction and Inspection; Revision P
GMP-243; Inspection and Testing of Overload Relay Heaters Electrical Maintenance; Revision B
MRE003088; SBV Train B Inoperable
SP-14-117A; Auxiliary Building Special Vent System Test Train A
SP-14-117B; Auxiliary Building Special Vent System Test Train B
SP-24-107B; SBV Train B Operability Test; Revision M
SP-24-107D; SBV Train B Monthly Test; Revision A
WO 07-006318-000; Motor Shield Building Vent Fan 1B
Quality Control Inspection Record; WO 07-006318-000; May 4, 2007

1R22: Surveillance Testing

CA031240; Zone SV USAR Allowed Leakage Area May Be Non-Conservative
CA031241; Zone SV USAR Allowed Leakage Area May Be Non-Conservative
CA031969; Zone SV USAR Allowed Leakage Area May Be Non-Conservative
CA031970; Zone SV USAR Allowed Leakage Area May Be Non-Conservative
CA032005; Material Stored Leaning On and Next to Ductwork that is Part of Zone SV and SE
CA032237; Evaluate Methods to Control Elevator Doors as Open Barriers
CA032238; Revise USAR Regarding Elevator Doors
CA032372; Calculations 100235 and 11688 Do Not Reflect the Installed Configuration of the Current License Basis
CA032373; CE 20246 Performed a Design and License Basis Review of Zone SV Boundary
CAP031029; Boot Seal for Penetration 25N Contains Water
CAP041815; Water Found in Boot Seal at Pen 25N
CAP041831; Delaminated/Spalled Shield Building
CAP043166; Inspectors Raise Concern with Improper Storage Allowed by Procedure GNP 01.31.01
CAP043674; Auxiliary Building Roof Leak into Electrical Junction Box

CAP043712; Roof Drain Pipe Leaks at Roof Penetration
CAP043792; NRC Resident Inspector Questioned if Elevator Doors are Zone SV Boundaries
CAP043818; Zone SV USAR Allowed Leakage Area May be Non-conservative
CAP043852; Water Found Dripping from Ceiling in Auxiliary Building Basement
CAP044013; BAST Room Floor Drain Open to Non-SV/Non-Steam Exclusion Area
CAP044347; Penetration 560 is Dripping Water at 20 dpm
CAP044506; Diesel Generator B Ventilation Measured Flow Readings Lower than Assumed in Calc C10044, Revision 1
CAP044548; HC 484 (Steam Dump Pressure Handstation) would not go to Zero Output during Surveillance Procedure
CAP044731; Temp Change for SP-31-168A
CAP044754; Operator Timing - RC-422 Mistimed. Stopped Stopwatch when Red Light Went Off Instead of Green Light On. Timing was .5 Seconds; Re-timed Correctly and Correct Timing was .9 Seconds
CAP044796; Material Stored Leaning on and Next to Ductwork that is Part of Zone SV and SE
CAP044908; Leaky Roof - Auxiliary Building
CAP044965; Boot Seal for Penetration 25N Contains Corrosion Products
CAP045082; Zone SV Leaks Exist That are not Being tracked
CE020244; The NRC Resident Inspector Questioned If Elevator Doors are Zone SV Boundaries
CE020246; Zone SV USAR Allowed Leakage Area May Be Non-Conservative
FPP-08-09; Barrier Control; Revision 12
GMP-208; The Opening and Sealing of penetration Seals; Revision K
KPS USAR; Reactor Containment Vessel Penetrations; Table 5.2-3; Revision 20
PCR032236; The NRC Resident Inspector Questioned If Elevator Doors are Zone SV Boundaries
PMP-08-19; FP - Inspection of Fire Doors; Revision 14
PMP-08-33; FP - Penetration Fire Barrier Inspection; Revision L
PMP-14-02; ASV - Damper Maintenance (QA-1); Revision 14
RAS Documentation of CAP044506; May 3, 2007
RT-DGM-10-TSC; Technical Support Center Diesel Generator; Revision AH
SP-02-232; SW Header B Pressure Switch Calibration; Revision E
50.59 Applicability Review of SP-02-232; Revision E
SP-05B-346; Turbine Driven AFW Pump Low Suction and Low Discharge Pressure Trip Test; Revision F
SP-14-026A; Auxiliary Building Special Ventilation Train A Operability Test; Revision I
SP-14-026B; Auxiliary Building Special Ventilation Train B Operability Test; Revision I
SP-14-026C; Auxiliary Building Special Ventilation Train A (ASV)Monthly Test; Revision C
SP-14-026D; Auxiliary Building Special Ventilation Train b (ASV)Monthly Test; Revision B
SP-14-0117A; Auxiliary Building Special Ventilation Test Train A; Revision A
SP-14-0117B; Auxiliary Building Special Ventilation Test Train B; Revision A
SP-14-156; SV Access Door Interlock Operability Test; Revision J
SP-31-168A; Train A Component Cooling Pump and Valve Test - IST; Revision J
50.59 Applicability Review of SP-31-168A; Revision J
SP-31-168B; Train B Component Cooling Pump and valve Test - IST; Revision L
SP-33-098A; Train A Safety Injection Pump and Valve Test - IST; Revision G
SP-34-099B; Train B RHR Pump and Valve Test - IST; Revision L
50.59 Applicability Review of SP-34099B; Revision L
SP-42-047B; Diesel Generator B Operational Test: Revision AH

SP-42-312A; Diesel Generator B Availability Test; Revision AB
50.59 Applicability Review of SP-42-312A; Revision AB
SP-42-312B; Diesel Generator B Availability Test; Revision AB
50.59 Applicability Review of SP-42-312B; Revision AB
SP-54-058; Turbine First Stage Pressure Instruments Channel Test; Revision S
SP-55-167-3A; MG(R) and MD(R) Valves Timing Test Train A (IST): Revision Orig
SP-55-167-5A; Miscellaneous Systems Valve Timing Tests (IST) - Train A; Revision B
TSC Diesel Generator Operation Log; April 10, 2007
WO 07-002512-000; Fan-Diesel Generator Room Vent Supply Fan 1B
Diesel Generator 1B Operation Log; April 5, 2007

2OS3: Radiation Monitoring Instrumentation and Protective Equipment
KNPP NAD-01.14; Respiratory Protection Program; Revision K
KNPP NAD-01.15; Medical Examination Program; Revision I
HP-02.002; Respiratory Protective Equipment; Revision O.
HP-02.02 Attachment D; Monthly SCBA Air Cylinder Inventory; Revision O
Form HPF-152; Emergency/Non-Emergency Respirator Inventory/Maintenance; Revision A;
HP-2.06; Quality Tests of Vendor - Supplied Breathing Air; Revision B.
Fire Protection Engineering Evaluation (FPEE) Number 042; Minimum Number of Breathing Air Cylinders for Fire Protection; Revision 0.
CAP031235; PCM-1 Alarm Response to Plant Smear
CAP032133; PCM-1 Foot Detector Protective Plastic Too Thick and Affects Operation
CAP030939; Missed Daily Source Checks of Free Release Instruments as Required by HP-01.006
CAP031233; PM7 Response Check Source
HP-05.004; Radiation and Contamination Survey and Airborne Radioactivity Sampling Schedules; Revision W.
HP-07.105; Instrument Calibration Procedure - Eberline Beta Particulate Air Monitor, Model AMS-4, Revision E.
HPF-220; Radiac Calibration Worksheet; AMS-4; Serial Number 6087-2; Revision A
HP-07.020; Instrument Calibration Procedure - RO-7; Revision D.
HPF-220; Radiac Calibration Worksheet; RO-7; Serial Number 125; Revision A
HP-07-112; Instrument Calibration Procedure- AMP Series Dose Rate Instrument; Revision C.
HPF-220; Radiac Calibration Worksheet; AMP-100; Serial Number 5005-115; Revision A
CAP044763; Potentially Inadequate Procedure Control for Calibration of Whole Body Counter
CAP044749; Verify the Number of SCBA unit as listed in HP0-002. Section 6.5.3
CAP044725; Review Current Radiological Postings on the RAF Cal Room Door
CAP044704; R-16 Flow Indicator Has More Than Normal
CAP044709; USAR Table 11.2-7 Does Not Agree with E-2021 for R-40 and R-41

2PS3: Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program
Audit 05-06; RP/PCP/CHEM Programs; dated September 22, 2005
Audit 06-08; Radiological Protection & Process Control Program; dated September 21, 2006
CAP031086; Conditionally Released Item Leaves Site
ACE003179; Conditionally Released Item Leaves Site
CAP033239; Clean Sweep results for April 17 thru April 22, 2006
CAP033571; Clean Sweep results for April 24 thru April 29, 2006

CAP040659; Clean Sweep results for May 1 thru August 29, 2006
CAP040664; Clean Sweep results for November 18, 2006 thru January 3, 2007
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CAP043130; Clean Sweep Phase 2 Results
CAP043130; Clean Sweep Phase 3 Results
Analytical Procedures Manual; Environmental Inc. Midwest Laboratory; dated February 8, 2007
2005 Annual Environmental Monitoring Report
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Offsite Dose Calculation Manual; Revision 11; February 22, 2007
Updated Safety Analysis Report; Chapter 2, Site; Revision 20; April 2007
Radiological Environmental Monitoring Manual; Revision 12; February 22, 2007
HP-01-014; Land Use Census Program; Revision D; February 7, 2007
HP-05.001; Survey and Sampling Techniques; Revision J; August 11, 2006
HP-01.004; RCA Entry and Exit; Revision Y; April 10, 2007
SP-63-276; Monthly Environmental Reports; Revision H; November 16, 2006
SP-63-280; Annual Environmental Reports; Revision K; November 28, 2006
SP-63-164; Environmental Sample Collection; Revision AE; March 20, 2007
ICP-63-30; MET- Primary Tower Sensor Replacement RTD and Processor Calibrations; Revision 1; May 3, 2007
ICP-63-31; MET- Backup Tower Sensor Replacement RTD and Processor Calibrations; Revision 1; May 3, 2007
PMP-63-01; MET- Environmental Monitors Inspection and Maintenance; Revision 14; May 31, 2007
KNPP Data Logger and Software; Operator Training Information Manual; Met One Instruments, Inc.; April 30, 2004
NUPIC Joint Audit of Environmental Inc., Northbrook, IL; NUPIC Audit/Survey Number 19238; January 18, 2006
CR014963; Enhancement needed for HP-01.022; June 28, 2007 (NRC Identified)
CR014969; XOQ/DOQ Evaluation Needs Updating; June 28, 2007 (NRC Identified)
CR014860; NRC Identified Procedure Deficiency, “No Max Bkg for Frisking with RM-14"; June 27, 2007 (NRC Identified)
CR014855; REMM Does Not Specify Sectors; June 27, 2007 (NRC Identified)
CR014856; NRC Inspector Concern with REMP Air Sampling; June 27, 2007 (NRC Identified)

4OA1: Performance Indicator Verification

Kewaunee Power Station Performance Indicator Data Sheets, First Quarter 2005 through First Quarter 2007; June 25, 2007

4OA2: Identification and Resolution of Problems

CA030041; Fire Pump refurbishment/replacement
CA030042; Fire Pump refurbishment/replacement
CAP040523; Adverse Trend of inconsistencies found during WO closeout
CAP041495; CAPs Needing Trend Coding
CAP042087; Fire Pump refurbishment/replacement
WO 07-002365-000; Pump-Fire Pump 1B
WO 07-002542-000; Pump-Fire Pump 1B
2007 First Quarter Corrective Action Program Trend Report; dated May 25, 2007

4OA3: Event Follow-up

CA031451; HX Performance Monitoring and Tube Plugging Using Incorrect SW Flow Rates
CE020208; EDG Jacket Water HX Design Basis Performance Analysis is not Bounding
CAP043556; EDG Jacket Water HX Design Basis Performance Analysis is not Bounding
CAP044034; HX Performance Monitoring and Tube Plugging Using Incorrect SW Flow Rates
CAP044239; Reactor Thermal Power was Fluctuating Due to Fluctuations in S/G B FW
CAP044483; Additional Information Regarding Diesel Generator Jacket Water Coolers
CR014014; NRC Discussion Associated with FW 7B Spiking
D/G A Heat Transfer and Fouling Trends Data
D/G B Heat Transfer and Fouling Trends Data
Diesel Generator Jacket Water Heat Exchanger Briefing Sheet
LAR 230 RAI Response; Serial No. 07-0008A; Attachment 1
MKW Power Systems Inc. Correspondence; EMD 645E4 Diesel Engine Ratings at Elevated Temperatures; June 11, 1992
PROTO-HX 4.10 by Proto-Power Corporation; Calculation Report for D/G A - EDG Jacket Water Coolers Data
SW Minimum Assumed Available Flow to SR Hxs Data
Drawing XK-100-554; Instrument Block Diagram Steam Generator Level; Revision 1Z

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
AFW	Auxiliary Feedwater
ARM	Area Radiation Monitor
CA	Corrective Action
CAP	Corrective Action Program
CCW	Component Cooling Water
CFR	Code of Federal Regulations
CR	Condition Report
CRAC	Control Room Air Conditioning
CREZ	Control Room Exclusion Zone
EDG	Emergency Diesel Generator
HRA	High Radiation Area
NCV	Non-Cited Violation
NRC	U.S. Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
PARS	Publicly Available Records
PI	Performance Indicator
RA	Risk Assessment
RCA	Radiologically Controlled Area
REMP	Radiological Environmental Monitoring Program
RETS	Radiological Environmental Technical Specifications
RP	Radiation Protection
SCBA	Self-Contained Breathing Apparatus
SDP	Significance Determination Process
SW	service water
TS	Technical Specifications
UHS	Ultimate Heat Sink
URI	Unresolved Item
USAR	Updated Safety Analysis Report
Zone SV	Special Ventilation Zone